

Please amend the Claims as follows:

1. (Original) An apparatus for providing backlight illumination of an image, said apparatus comprising:

a glass substrate having a front surface and a rear surface,

an opaque border adhered to said rear surface, said opaque border having an inside aperture whereby a selected portion of the image is illuminated;

a plurality of conductive traces adhered to said opaque border;

at least one light emitting device adhered to said rear surface, each of said at least one light emitting device in electrical connection with at least a pair of said plurality of conductive traces, said plurality of conductive traces and said at least one light emitting device forming an illumination circuit;

a means for supplying power to said illumination circuit;

a sheet proximal said front surface of said substrate, said sheet including the image to be illuminated; and

a back board having a reflector, said back board positioned proximal to and separated from said rear surface of said substrate, said reflector on a surface of said back board proximal said rear surface.

2. (Original) The apparatus of Claim 1 further including a dropping resistor adhered to said opaque border, wherein said at least one light emitting device includes at least one light emitting diode, said dropping resistor in electrical connection with at least a pair of said plurality of conductive traces, said plurality of conductive traces, said at

least one light emitting device, and said dropping resistor forming said illumination circuit.

3. (Original) The apparatus of Claim 2 wherein said dropping resistor is formed from a resistive polymer thick film ink.

4. (Original) The apparatus of Claim 2 wherein said dropping resistor is a surface mount component having a selected resistance.

5. (Original) The apparatus of Claim 1 wherein said plurality of conductive traces are formed of a conductive polymer thick film ink.

6. (Original) The apparatus of Claim 1 further including a plurality of spacers separating said back board from said rear surface.

7. (Original) The apparatus of Claim 1 further including a light barrier between said back board and said rear surface.

8. (Original) The apparatus of Claim 1 further including a frame in which said substrate, said sheet, and said back board are secured, said frame having an opening for viewing the image.

9. (Original) The apparatus of Claim 1 wherein said means for supplying power includes a power connector adhered to said substrate, said power connector in electrical connection with a pair of said plurality of conductive traces.

10. (Original) The apparatus of Claim 1 wherein said means for supplying power includes a battery holder adhered to said substrate, said battery holder in electrical connection with a pair of said plurality of conductive traces.

11. (Currently amended) An apparatus for providing backlight illumination of an image, said apparatus comprising:

a substrate having a front surface and a rear surface,

an opaque border adhered to said rear surface, said opaque border having an inside aperture whereby a selected portion of the image is illuminated,

a plurality of conductive traces adhered to said rear surface, said plurality of conductive traces formed of a conductive polymer thick film ink; and

at least one light emitting device adhered to said rear surface, each of said at least one light emitting device in electrical connection with at least a pair of said plurality of conductive traces, said plurality of conductive traces and said at least one light emitting device forming an illumination circuit.

12. (Original) The apparatus of Claim 11 further including a dropping resistor adhered to said opaque border, wherein said at least one light emitting device includes at least one light emitting diode, said dropping resistor in electrical connection with at least a pair of said plurality of conductive traces, and said plurality of conductive traces, said at least one light emitting device, and said dropping resistor forming said illumination circuit.

13. (Currently amended) The apparatus of Claim 11 ~~further including an opaque border is adhered to said rear surface,~~ wherein said substrate is formed of glass, and said opaque border is positioned between said substrate and said plurality of conductive traces.

14. (Original) The apparatus of Claim 11 further including a means for supplying power to said illumination circuit.

15. (Original) The apparatus of Claim 11 further including a power connector adhered to said substrate, said power connector in electrical connection with a pair of said plurality of conductive traces.

16. (Original) The apparatus of Claim 11 further including a battery holder adhered to said substrate, said battery holder in electrical connection with a pair of said plurality of conductive traces.

17. (Original) The apparatus of Claim 11 further including a sheet proximal said front surface of said substrate, said sheet including the image to be illuminated.

18. (Original) The apparatus of Claim 11 further including a back board, said back board positioned proximal to and separated from said rear surface of said substrate.

19. (Original) The apparatus of Claim 18 further including a plurality of spacers separating said back board from said rear surface.

20. (Original) The apparatus of Claim 18 further including a reflector on a surface of said back board proximal said rear surface.

21. (Original) The apparatus of Claim 18 further including a light barrier between said back board and said rear surface.

22. (Currently amended) The apparatus of Claim 11 further including a sheet proximal said front surface of said substrate, said sheet having the image to be illuminated and a back board having a reflector, said back board positioned proximal to and separated from said rear surface of said substrate .

23. (Original) The apparatus of Claim 22 further including a frame in which said substrate, said sheet, and said back board are secured, said frame having an opening for viewing the image.

24. (Currently amended) An apparatus for providing backlight illumination of an image, said apparatus comprising:

a means for forming an illumination circuit on a substrate;

a means for supplying power to said illumination circuit; and

a means for backlighting the image ~~(+)~~ and;

a means for blocking a front view of said illumination circuit.

25. (Cancelled)

26. (Currently amended) A method of providing backlight illumination of an image with an illumination circuit formed on a substrate, said method comprising the steps of:

(a) applying an opaque border to said surface of the substrate:

~~(a)~~ (b) thereafter applying a conductive polymer thick film ink to a plurality of selected portions of a surface of the substrate, said conductive polymer thick film ink forming a plurality of conductive traces;

~~(b)~~ (c) applying at least one light emitting device to at least one selected portion of said surface, said at least one light emitting device positioned such that each of a pair of terminals is in contact with said conductive polymer thick film ink; and

~~(c)~~ (d) curing said conductive polymer thick film ink.

27. (Cancelled)

28. (Currently amended) The ~~apparatus~~ method of Claim 26 further including ~~a step of~~ applying an adhesive to said at least one selected portion of said surface, said step of applying said adhesive

performed before said step (b) of applying said at least one light emitting device.

29. (Currently amended) The ~~apparatus~~ method of Claim 26 further including ~~the step of~~ applying a dropping resistor to said substrate, said dropping resistor positioned such that each of a pair of terminals is in contact with said conductive polymer thick film ink.

30. (Currently amended) The ~~apparatus~~ method of Claim 29 wherein said dropping resistor is a surface mount resistor.

31. (Currently amended) The ~~apparatus~~ method of Claim 29 wherein said dropping resistor is a resistive polymer thick film ink applied to a selected region of the glass substrate with said resistive polymer thick film ink bridging a gap between two of said plurality of conductive traces.

32. (Currently amended) The ~~apparatus~~ method of Claim 26 further including ~~a step of~~ applying a power connector to the glass substrate, said power connector having a pair of terminals in contact with said conductive polymer thick film ink.

33. (Currently amended) The ~~apparatus~~ method of Claim 26 further including ~~a step of~~ applying a battery holder to the glass substrate, said battery holder having a pair of terminals in contact with said conductive polymer thick film ink.

REMARKS

Claims 1-33 are in the application.

The Specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. Applicant is unclear as

to what the Examiner is seeking in that each of the steps recited as needing correction is readily found in the specification as set forth herein below. Clarification is requested if the following is not the information which the Examiner is seeking.

Claim 27 states "a step of applying an opaque boarder", but the "step" has not been previously disclosed. (See paragraphs 0019 and 0034 of the specification.)

Claim 28 states "a step of applying an adhesive", but the "step" has not been previously disclosed. (See paragraphs 0019 and 0033 of the specification.)

Claim 29 states "the step of applying a dropping resistor", but the step has not been previously disclosed. (See paragraph 0033 of the specification).

Claim 32 states "a step of applying a power connector" but the "step" has not been previously disclosed. (See paragraph 0033 of the specification).

Claim 33 states "a step of applying a battery holder", but the "step" has not been previously disclosed. (See paragraphs 0030 and 0031 of the specification).

In addition, thinking that the Examiner may be objecting to the form of the language of Claims 27, 28, 29, 32 and 33, Applicant has amended the language in each of these Claims to delete the language "a step of" or "the step of" from each of these Claims so that the amended Claim language positively recites the "step". Again, if this action is not desired by the Examiner, authorization is given to reverse these changes.

in these Claims by Examiner's amendment. Again, clarification is requested.

Claims 27-33 refer back to Claim 26, a method Claim. Amendment of these Claims to substitute "method" for "apparatus" in each Claim has been made by the present response.

Claims 1-10 stand allowed.

Independent Claim 11 stands rejected under 35 USC §103(a). By the present amendment, Claim 11 has been amended to include in the claimed combination an opaque border adhered to the rear surface of the substrate, said opaque border having an inside aperture whereby a selected portion of the image is illuminated. As noted in the Examiner's comments relating to the allowability of Claim 1, this element is missing from the prior art. It is thus respectfully suggested that amended Claim 11 is in condition for allowance.

Claims 12, 13, 16-23, 25, 27, 29-31 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

By reason of the amendment to Claim 11, which places this Claim in condition for allowance, it is respectfully submitted that Claims 12, 13, 16-23 (which are dependent either directly or indirectly on Claim 11) inherit each and every limitation of their respective parent Claims and any intervening Claims, and therefore are allowable for the same reasons, among others, as urged for amended Claim 11.

Claim 13 has been amended to eliminate duplicitous language.

In view of the amendment to the base Claim 11, it is respectfully requested that the rejection of Claim 11 under 35 USC §103 (a) be withdrawn. For the reasons set forth herein, it is further requested that the objections to Claims 12, 13, 16-23 as being drawn to a disallowed Claim be withdrawn.

Claim 24 has been amended to supply a period at the end of the Claim.

Claim 24 stands rejected under 35 USC §102(b) as being anticipated by Richardson. Claim 25 is dependent on Claim 24, but is indicated as being allowable if rewritten in independent form. Claim 24 has been amended to include therein all of the limitations of Claim 25 and therefore is now deemed in condition for allowance.

Withdrawal of the rejection of Claim 24 under 35 USC§102(b) is respectfully requested.

Claim 25 has been cancelled.

Claims 14, 15, 26, 28 and 32 stand rejected under 35 USC § 103(a) as being unpatentable over Richardson in view of Bowman. Claims 14 and 15 are dependent from Claim 11, as amended, and therefore inherit each and every one of the limitations of their parent claim and any intervening claim. In view of the present amendment to Claim 11, it is urged that Claims 14 and 15 are allowable for the same reasons, among others, as set forth herein in discussing the allowability of Claim 11, as amended.

Claim 26 has been amended by the present response to include the limitations of Claim 27 relative to the inclusion of an opaque border on the rear side of the substrate, thereby placing Claim 26 in condition for allowance.

Claim 27 has been cancelled.

Claims 28 and 32 are each dependent from Claim 26, as amended, and as such each inherits each and every limitation of its parent Claim and any intervening Claim. Accordingly, allowability of Claims 28 and 32 is urged for the same reasons, among others, as set forth herein in discussing the allowability of Claim 26, as amended.

Withdrawal of the rejection of Claims 14, 15, 26, 28 and 32 under 35 USC § 103(a) as being unpatentable over Richardson in view of Bowman is respectfully requested.


Objection to the absence of the numeral 10 in the Figures has been corrected by the submission herewith of a Replacement Sheet containing Figure 1. Entry of this Replacement Sheet into the application is respectfully requested.

Reconsideration of the application and allowance of Claims 1-24, 26, 28-33, as amended, are respectfully requested.

Please charge any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 16-1910.

Respectfully submitted,

PITTS AND BRITTIAN, P.C.

By 
Robert E. Pitts
Reg. No. 27,371

PITTS AND BRITTIAN, P.C.
P.O. Box 51295
Knoxville, Tennessee 37950-1295
(865) 584-0105 Voice
(865) 584-0104 Fax
rpitts@pitts-brittian.com